

Application No: 09/136,483

REMARKS

Claims 1-3 and 5-22 are pending. Applicants have amended the specification to update references to copending applications that have subsequently issued. No new matter is introduced by the amendments.

Claims 17 and 18 have been allowed. Claims 1-3, 5-16 and 19-22 stand rejected. Applicants respectfully request reconsideration of the rejections based on the following comments.

Claim Rejections under 35 U.S.C. § 102 and/or § 103

The Examiner rejected claims 1-3, 5-10 and 19-22 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative under 35 U.S.C. § 103(a) as obvious over U.S. Patent 5,389,194 to Rostoker et al. (the Rostoker patent). The present case is on remand from the U.S. Court of Appeals for the Federal Circuit. The court mandated the consideration of the Declarations of both Dr. Singh and Dr. Kambe. Specifically, in a broad sense, two issues were argued before the court. One issue was the unraveling of the teachings of the Rostoker patent, which Applicants still maintain does not disclose their claimed invention. The second issue was Applicants' well supported assertion that the Rostoker patent does not enable the practice of Applicants' claimed invention. Applicants maintain that the Examiner has fallen short of establishing *prima facie* anticipation or obviousness and to the extent that *prima facie* anticipation or obviousness has been established, these have been clearly rebutted by Applicants. Applicants respectfully request reconsideration of the rejection based on the following comments.

"In order to constitute anticipatory prior art, a reference must identically disclose the claimed compound..." MPEP 2122 citing In re Schoenwald, 22 USPQ2d 1671, (Fed. Cir. 1992). "For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the

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claimed invention must be identically shown in a single reference. These elements must be arranged as in the claim under review, but this is not an 'ipsissimis verbis' test." In re Bond, 15 USPQ2d 1566, 1567 (Fed. Cir, 1990)(Internal citations omitted and emphasis added.).

The proposition is well established that the cited art only renders a composition of matter or apparatus unpatentable to the extent that the cited art enables the disputed claims, in other words, if the cited art provides a means of obtaining the claimed composition or apparatus.

To the extent that anyone may draw an inference from the Von Bramer case that the mere printed conception or the mere printed contemplation which constitutes the designation of a 'compound' is sufficient to show that such a compound is old, regardless of whether the compound is involved in a 35 U.S.C. 102 or 35 U.S.C. 103 rejection, we totally disagree. ... We think, rather, that the true test of any prior art relied upon to show or suggest that a chemical compound is old, is whether the prior art is such as to place the disclosed 'compound' in the possession of the public. In re Brown, 141 USPQ 245, 248-49 (CCPA 1964)(emphasis in original)(citations omitted).

Similarly, see In re Hoeksema, 158 USPQ 596, 600 (CCPA 1968)(emphasis in original):

We are certain, however, that the invention as a whole is the claimed compound and a way to produce it, wherefore appellant's argument has substance. There has been no showing by the Patent Office in this record that the claimed compound can exist because there is no showing of a known or obvious way to manufacture it; hence, it seems to us that the 'invention as a whole,' which section 103 demands that we consider, is not obvious from the prior art of record.

While there are valid reasons based on public policy as to why this defect in the prior art precludes a finding of obviousness under section 103, In re Brown, supra, its immediate significance in the present inquiry is that it poses yet another difference between the claimed invention and the prior art which must be considered in the context of section 103. So considered, we think the differences between appellant's invention as a whole and the prior art are such that the claimed invention would not be obvious within the contemplation of 35 U.S.C. 103.

The Federal Circuit has further emphasized these issues. Assertions in a prior art reference do not support an anticipation or obviousness rejection unless the references place the claimed

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invention in the hands of the public. Beckman Instruments Inc. v. LKB Produkter AB, 13 USPQ2d 1301, 1304 (Fed. Cir. 1989). "In order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method." Id. While a properly citable reference is prior art for all that it teaches, references along with the knowledge of a person of ordinary skill in the art must be enabling to place the invention in the hands of the public. In re Paulsen, 31 USPQ2d 1671, 1675 (Fed. Cir. 1994). See also In re Donohue, 226 USPQ 619, 621 (Fed. Cir. 1985). "[A] § 102(b) reference "must sufficiently describe the claimed invention to have placed the public in possession of it." Paperless Accounting, Inc. v. Bay Area Rapid Transit Sys., 804 F.2d 659, 665 (Fed. Cir. 1986), cert. denied, 480 U.S. 933 (1987)(quoting In re Donohue, 766 F.2d at 533). An enabling disclosure is one that allows a person of ordinary skill to practice the technology without undue experimentation based on the guidance in the disclosure along with what is well known in the art. In re Wands, 858 F. 2d 731, 737 (Fed. Cir. 1988).

See also, Ex parte Logan, 38 USPQ2d 1852, 1856 (BPAI 1994) (unpublished). While this Board case is not binding precedent, it is probative of an appropriate analysis under the present facts. In Ex parte Logan, Id., the claims were rejected over a patent and a corresponding patent application. In response to the rejection, appellants argued that the cited patent and application were inoperable. In support of the appellants' assertions, a declaration was presented. The Examiner dismissed the declaration as mere opinion by an interested party. The Board in this case noted that the factual evidence presented in the declaration was probative of the issues. Furthermore, the Examiner did not offer any evidence or argument that the required modifications to make the previous invention functional would have been made by a person of ordinary skill in the art. The board concluded that the appellant had met their burden of rebutting the presumption of operability of the prior art patent by a preponderance of the evidence. Id. In reaching this holding, the court expressly noted that, "the examiner has failed to shoulder his

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burden of rebutting the appellant's evidence of non-enablement/inoperability." Id. (emphasis added).

The Examiner has repeated an interpretation of the Rostoker patent proposed during prosecution. Of course, the Examiner, the Board and the Solicitor all had separate interpretations. This fact alone clearly indicates that the meaning of Rostoker is *ipso facto* unclear.

The Examiner did not bother to re-address any of these issues. Instead, the "examiners [sic] remarks [from "the original Examiners [sic] answer"] being [sic] incorporated by reference." See Office Action at page 7. The interpretation of the gobbledegook in the Rostoker patent has been argued in great detail in the earlier prosecution, and Applicants agree with the Examiner that this dispute does not need to be repeated completely. Applicants similarly incorporate by reference their arguments on the meaning of Rostoker from their Appeal Brief of September 5, 2000, their Reply Brief of January 8, 2001, their Request for Reconsideration of May 2, 2003, their Federal Circuit Brief of January 23, 2004, and their Federal Circuit Reply Brief of May 19, 2004. However, the Examiner considered the Singh Declaration enough to reject it. The Examiner's comments on Professor Singh's Declaration are considered in detail.

The Examiner rejected Dr. Singh's Declaration based on an assertion that "there has been no showing of a preponderance of the evidence that the Q value cannot be determined by the disclosed method." The Examiner also states that the "declaration criticizes one possible method of determining Q, as defined in the reference and there has been no showing of a preponderance of evidence that the Q value cannot be determined by the disclosed method." With all due respect, the standard for evaluating the teachings of a cited reference is not what is possible, but what a person of ordinary skill in the art would interpret the subject matter to mean. We all can fix the Rostoker patent to say something meaningful, but the issue is what does Rostoker, as written, teach to a person of ordinary skill in the art?

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Furthermore, the Examiner asserts that "the fact that the method for determining Q might be unclear to Dr. Singh and not found in the books cited by Dr. Singh does not detract from the rest of the teachings of this patent nor does it show the Q value cannot be determined by one of ordinary skill in the art." However, Professor Singh stated in the declaration that he had read the Rostoker patent carefully. That would indicate the whole patent. The Examiner does not seem to question that Dr. Singh is an expert in the field. The Examiner seems to be asserting that he and the Board are persons of ordinary skill in the art, which has not been established, and that they know better than an expert. Neither the Examiner nor the Board have described the skill level of a person of ordinary skill in the art. With all due respect, the Examiner's position seems to be that Professor Singh as an expert is too smart to be able to interpret the language in the Rostoker patent. If he were only a little less of an expert then maybe it would all be clear to him. But if the Examiner's position has any support in the field, there should be some documentary evidence available to present in support of the Examiner's position, but none has been presented. Applicants have shown far beyond preponderance of the evidence and have presented clear and convincing evidence that the Rostoker patent does not teach particles with Applicants' claimed particle size distribution. The rejection cannot stand unless the Examiner presents some further evidence.

Applicants have presented further evidence that the Rostoker patent does not enable a person of ordinary skill in the art to practice Applicants' claimed invention. In particular, Applicants have presented documentary evidence that the process of the Siegel patent, which is cited in the Rostoker patent, is not capable of producing the claimed particle collections. In addition, Applicants provided a Declaration by Dr. Kambe. Dr. Kambe stated under oath that he is "very familiar with various approaches for producing nanoscale particles, characterizing these particles and the public availability of nanoscale particles with various properties. A successful founder of a technology driven company working in the area of nanoparticles is required to have

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such knowledge." Dr. Kambe's resume clearly establishes him as an expert in the field of nanotechnology. An expert is defined by Merriam Webster's 10th Collegiate Dictionary as "one with special skill or knowledge representing mastery of a particular subject." Dr. Kambe has said under oath that he has this special knowledge of the field, so that his opinions are irrefutably based on facts, i.e. knowledge. The statement of an expert is generally considered the best source of facts available. Dr. Kambe stated under oath that he was aware of no method for making the claimed particle collections. This statement supports well beyond a preponderance of the evidence that the Rostoker patent is NOT enabling to make Applicants' claimed invention.

As stated by the Federal Circuit at page 12 of their opinion that remanded the present case back to the PTO (emphasis added), "The PTO argues that as long as Rostoker enables the Rostoker invention, Rostoker renders the Kumar invention obvious, even if Kumar shows that Rostoker does not enable the Kumar invention. **That is incorrect.** To render a later invention unpatentable for obviousness, the prior art must enable a person of ordinary skill in the field to make and use the later invention. Beckman Instruments, Inc., 892 F.2d at 1551; Payne, 606 F.2d at 314. Thus the relevant inquiry is not whether the Rostoker patent was invalid for lack of enablement, but whether Rostoker enabled persons skilled in the art to produce particles of the size and distribution claimed by Kumar." The court further indicated that Dr. Kambe's Declaration **needed** to be reevaluated in view of Professor Singh's Declaration. The Examiner has not done this even though the Federal Circuit indicated that it must be done.

In summary, Applicants have shown un-refuted evidence that the Siegel process does not teach a process suitable for producing the claimed particle collections. In addition, two declarations by experts indicate that they know of no other approaches to produce the claimed particle distributions for these materials. The Rostoker patent does not teach any other approach for producing the particles.

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In summary, the Examiner has not established *prima facie* anticipation or obviousness and to the extent that *prima facie* anticipation or obviousness has been established, this has been clearly refuted by Applicants. Therefore, Applicants respectfully request withdrawal of the rejection of claims 1-3, 5-10 and 19-22 under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative under 35 U.S.C. § 103(a) as obvious over the Rostoker patent.

Claim Rejection under 35 U.S.C. § 103

The Examiner rejected claims 11-16 under 35 U.S.C. § 103(a) as being obvious over the Rostoker patent in view of U.S. Patent 6,001,730 to Farkas, et al. (the Farkas patent). The Examiner cited the Farkas patent for its teaching of liquids for forming polishing compositions. Claims 11-16 depend from claim 1. The shortcomings of the Rostoker patent with respect to teaching the features of Applicants' claim 1 were discussed in detail above. The Farkas patent does not teach or suggest aluminum oxide nanoparticles for polishing. Thus, the Farkas patent does not make up for the deficiencies of the Rostoker patent with respect to Applicants' claimed particle collections. Since the combined teachings of the Rostoker patent and the Farkas patent do not render Applicants' claimed invention *prima facie* obvious, Applicants respectfully request withdrawal of the rejection of claims 11-16 under 35 U.S.C. § 103(a) as being obvious over the Rostoker patent in view of the Farkas patent. While Applicants do not acquiesce in the Examiner's assertions regarding the features of the dependent claims, Applicants do not comment further on these issues presently since they are moot in view of the above discussion.

Rejection under Obviousness-Type Double Patenting - 09/422,202

The Examiner provisionally rejected claims 1-3, 5-16 and 19-22 under nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 14-24 of copending Application No. 09/422,202. The Examiner asserted that although "the conflicting

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claims are not identical, they are not patentably distinct from each other because the reduction to practice of the copending claims would render obvious the instant claims." Applicants note that the claims of the 09/422,202 application have been significantly amended. In view of the amendments of pending application 09/422,202, Applicants believe that the present claims are clearly not obvious over the pending claims of the 09/422,202 application. In view of the claim amendments in the 09/422,202 application, Applicants respectfully request withdrawal of the rejection of claims 1-3, 5-16 and 19-22 under nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 and 14-24 of copending Application No. 09/422,202.

Rejection under Obviousness-Type Double Patenting - 09/841,255 and Farkas

Claims 1-3, 5-16 and 19-22 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 15, 23 and 24 of copending Application No. 09/841,255 (the '255 application) in view of the Farkas patent. The Examiner asserted that with "respect to the metal oxide, the copending claims define a non silicon metal compound and this broadly reads on alumina." With all due respect, Applicants maintain that the combined teachings of the '255 application and the Farkas patent do not render Applicants' claimed invention *prima facie* obvious. Applicants respectfully request reconsideration of this rejection based on the following comments.

MPEP 2144.08 summarizes the procedure for evaluating whether or not the disclosure of a genus renders a species *prima facie* obvious. "To establish a *prima facie* case of obviousness in a genus-species chemical composition situation, as in any other 35 U.S.C. 103 case, it is essential that Office personnel find some motivation or suggestion to make the claimed invention in light of the prior art teaching." MPEP 2144.08 II.A. "Consider the size of the prior art genus, bearing in mind that size alone cannot support an obviousness rejection. ... Some

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motivation to select the claimed species or subgenus must be taught by the prior art." MPEP 2144.08 II.A.4(a) (emphasis added).

Under the present facts, the pending claims of 09/841,255 refer to non-silicon metal compounds. This is a vast genus. Nothing in the cited references suggests nano-scale alumina. Thus, the combined teachings of the cited references clearly do not render Applicants' presently claimed invention *prima facie* obvious. Applicants respectfully request withdrawal of the rejection of claims 1-3, 5-16 and 19-22 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 15, 23 and 24 of the '255 application in view of the Farkas patent.

Rejection under Obviousness-Type Double Patenting - 11/046,610

The Examiner provisionally rejected claims 1-2, 5-9, 11-16 and 19-22 under nonstatutory obviousness-type double patenting as being unpatentable over claims of copending U.S. Patent Application 11/046,610. This case is a continuation of the present application. Applicants will file a Terminal Disclaimer over the '610 application in the near future once the assignees signature can be obtained. The Terminal Disclaimer will obviate the obviousness-type double patenting rejection. Upon filing of the Terminal Disclaimer, Applicants respectfully request the withdrawal of the rejection of claims 1-2, 5-9, 11-16 and 19-22 under nonstatutory obviousness-type double patenting as being unpatentable over claims of copending U.S. Patent Application 11/046,610.

Rejection under Obviousness-Type Double Patenting - 09/969,025

The Examiner provisionally rejected claims 1-3, 5-8 and 19-22 under nonstatutory obviousness-type double patenting as being unpatentable over all the claims of copending Application No. 09/969,025 (the '025 application). Applicants note that the '025 application has

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a priority date of October 1, 2001 and is unrelated to the present application under 35 U.S.C. 120. The present application has a filing date of August 19, 1998. Rejections for obviousness-type double patenting are not proper for applications filed after June 8, 1995 over later filed applications. See MPEP 804.02 VI. Since this rejection is not appropriate, Applicants respectfully request withdrawal of the rejection of claims 1-3, 5-8 and 19-22 under nonstatutory obviousness-type double patenting as being unpatentable over all the claims of the '025 application.

CONCLUSION

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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